



# Genital Herpes

PATIENT EDUCATION SERIES

With about 1.6 million new cases per year, genital herpes is a common sexually transmitted infection; understanding the facts about herpes helps to make it a manageable condition. There are two types of herpes simplex virus (HSV) which can cause genital infections- HSV 1 and HSV 2. After initial infection, either type of HSV can remain in a dormant state in the nerve under the skin. Recurrences of herpes symptoms occur when the virus is reactivated, but there are important differences in HSV 1 and 2 which influence the symptoms and pattern of recurrences long term.

## Herpes Type 1

HSV 1 is the virus which most commonly causes cold sores or fever blisters on the lips. HSV1 is often contracted in childhood and may go unnoticed because symptoms are mild. HSV 1 can also infect the skin in other areas (eg. the face, arms, legs) when there is direct contact, such as in wrestlers. HSV1 can be sexually transmitted to the genitals when a person with herpes type 1 gives oral sex to someone else. HSV 1 causes about a third of primary genital herpes infections. 60% of adults will show antibodies to HSV 1 in a blood test, indicating previous infection, but the blood test does not indicate the location of the HSV 1 infection. That is, HSV 1 antibodies are present whether the herpes infection is on the genitals or on lips. While the symptoms of a primary genital outbreak may be the same for HSV 1 and 2, those with HSV 1 on the genitals are much less likely to have recurrences, 0.7 times per year or an outbreak every other year, versus an average of 5 times per year for HSV2.

## Herpes Type 2

HSV2 is the virus most often associated with genital herpes infection. HSV2 is much less likely to cause oral lesions. About 22 % of people have antibodies to HSV2 on a blood test. Many people with antibodies to HSV 2 are unaware that they are infected. This may be because many HSV infections, even primary outbreaks, may not be dramatic and may be attributed to other things (eg. irritation). Also, if someone has oral herpes (HSV1), this can result in milder cases of genital HSV 2 if exposure to the latter occurs, but it does not protect against acquiring HSV2.

## Symptoms of genital herpes

An initial or primary genital infection usually occurs 2-14 days after exposure to the virus in an infected sexual partner. Symptoms may include painful blisters or open sores/ulcers on the genitals, thighs, buttocks or anal area, scabs or crusts may form in some areas, fever, aches, flu-like symptoms, painful urination, vaginal or penile discharge, painful intercourse, itching, tender enlarged lymph nodes near the groin. Sometimes a new crop of herpes lesions will develop several days after the first batch. It is not uncommon for a primary outbreak to last 2-3 weeks among those who recognize symptoms. The primary outbreak of genital herpes is generally more uncomfortable than future outbreaks, and may be longer in duration. However, there is great variation in what people experience; some can have such a mild first outbreak that it is not recognized as an infection. If HSV2 is newly acquired in a person with HSV1, the first outbreak may be significantly shorter, less severe, and have less flu-like symptoms.

## Diagnosis of genital herpes

Genital herpes is diagnosed most accurately with a culture of lesions as early after onset as possible. As time goes by, it is harder to obtain the virus form sores that are beginning to heal. Blood tests are not helpful in diagnosing ongoing or recent herpes; the antibodies which blood tests measure can take 3-4 months to be measurable. So blood tests (for herpes 1 and 2 Igg antibodies) may only give information about herpes infection that has been acquired in the past.

## Treatment of genital herpes

Your provider can prescribe an oral anti-viral medication (eg. Acyclovir, valcyclovir (Valtrex), famcyclovir (Famvir)) which may shorten the intensity and duration of your outbreak. Tylenol or ibuprofen may be helpful in reducing soreness of lesions. Tepid baths may be soothing to genital lesions, and pouring warm water over the genitals when urinating may help to prevent stinging of the area from contact with urine. Loose clothing and cotton underwear may allow the area to breathe and heal better. Ice applied to the lesions may help lessen the severity and some report use during the prodrome may abort an outbreak.

There is insufficient data to support the effectiveness of some other treatments such as L-Lysine, or imiquod cream (Aldara).

### **Recurrent infections**

Because genital herpes remains in the nerve under the skin, it can not be permanently “cured,” and it may recur in the future. In general, recurrences of both herpes 1 and 2 on the genitals are less uncomfortable and shorter than the primary outbreak. Recurrences can occur anywhere in the “boxer shorts area (the same group of nerves in which the virus is living, supplies this area),” lasting about 2-10 days. Even if infected with HSV2, people can experience widely varying frequency of recurrent outbreaks. An average frequency of HSV 2 is 4-6 outbreaks per year, but some may not have another outbreak for years, or ever. The first year is not a good measure of what the future holds because people may have more outbreaks in the first year than subsequently. Over time, about half of people notice warning signals that a recurrent herpes outbreak may be beginning; they may experience a “prodrome” such as itching, tingling or other feelings which they come to recognize as being associated with an impending outbreak. This may allow you to take an episodic prescription of antiviral medicine prescribed by your provider very early in the recurrent infection, possibly lessening your symptoms significantly. Prodromal symptoms can also serve as a warning that you should not be sexually active, to reduce chances of transmission to an uninfected partner. Sometimes recurrences are triggered by things that are predictable, such as menses, excessive sunlight, friction, extended stress, illness.

### **Shedding herpes virus**

When there are active lesions present on the genitals, whether during a first or recurrent outbreak, there is an increased likelihood of passing the virus on if you are sexually active. Abstinence should be practiced during this time until all lesions are completely healed. However, there can also be shedding of herpes virus 1 or 2 when there are no active lesions. This may occur when the virus is inadvertently passed on through microscopic breaks in the skin, or from the cervix or urethra, during a time when an infected person believes himself to be lesion free. About 70% of new cases of herpes are transmitted from someone showing no obvious symptoms at the time they infect their partner. Studies show that shedding of HSV 2 occurs 15- 20 % of days, and at a higher rate in the first year after infection, compared to genital HSV 1 in which there is shedding 3-5% of days.

Latex is helpful in protecting a partner from asymptomatic shedding, although it is not 100% effective, as some areas which shed may not be covered by the condom. Of note is that shedding can also occur asymptotically from oral lesions, a source of new HSV1 on the genitals from oral sex. Although HSV1 is most transmittable when there is an active cold sore present, HSV1 oral infection may result in asymptomatic shedding 18 % of days. It is very important to talk honestly to your uninfected sexual partner(s) about your herpes infection, and to take precautions which will help prevent spread. If your partner has the same type of herpes (eg has HSV 1 on the mouth and you have HSV1 on genitals), you do not need to worry about him or her getting HSV1 on the genitals. Also, HSV2 largely protects against getting HSV1.

### **Suppressive treatment**

In some cases, your provider may present the option of taking an anti-viral medication preventatively on a daily basis for an extended period of time (eg. the first year after infection). Studies have shown that for HSV2 especially, taking an anti-viral may reduce the frequency of outbreaks and may also reduce the likelihood of transmission to an uninfected partner, by reducing asymptomatic shedding. Transmission rates for HSV2, if you abstain from sex during a known outbreak, do not use condoms regularly, and do not take a suppressive medicine are about 10 % male to female per year, and 4 % female to male per year. At this time there is not good data on same gender transmission. Studies done with one type of anti-viral medicine (valcyclovir) show reduced transmission of HSV2, by about 50%. When both anti-virals and condoms are used, transmission can be greatly reduced. 80-90% of people who take suppressive treatment also have a greatly reduced frequency of outbreaks, or none at all, while taking the drugs. Your provider can discuss the types of anti-virals available for suppression.

### **Other issues**

“Auto inoculation” may occur very infrequently: a situation in which touching a sore on your lip or other parts of your body, and then touching your genitals may result in developing herpes in that area. A rare complication of herpes can occur when herpes is inadvertently transferred to the eyes. Washing your hands well after contact with herpes lesions, before touching your eyes or putting in contacts is an important precaution. Tell your provider if you notice eye pain, a foreign body sensation, extreme sensitivity to light, redness, discharge or swelling of your eyes.

## **Herpes and pregnancy**

Women with herpes can have healthy normal children. While active herpes( especially a primary infection) can be transmitted during delivery and cause a serious infection in a newborn, this is usually very preventable. Informing your obstetrician allows special precautions to be taken during delivery and in the latter part of pregnancy, usually including suppressive treatment, with planning to protect the newborn .

## **Herpes is very manageable**

Genital herpes is the most prevalent sexually transmitted infection . You are not alone, and there are many sources of support. Some find it helpful to seek support from friends, family , or partners, while others rely on a counselor or support group. Sorting out fact from misinformation is the first step in managing herpes infection, and your provider is a resource for treatment options ,handling symptoms etc. Discussing herpes infection with partners is often a source of worry and concern. It is essential to disclose your herpes status to partners, and providers/counselors can also help you to find the best way to share this information.